

ORDINANCE AMENDMENT REVIEW SHEET

Amendment: C20-2015-003

Description: Consider a site-specific amendment to City Code Section 25-8-514 (Save Our Springs Initiative) and variances to City Code sections 25-8-281 and 25-8-341 associated with the Eliza Spring Outlet Daylighting Project (SP-2012-0104D).

Proposed Language: See attached draft ordinance.

Summary of proposed code changes:

- Grants a site-specific amendment to City Code Section 25-8-514 (*Pollution Prevention Required*) to exempt the project from the pollution prevention requirements of the Save Our Springs Ordinance;
- Grants a variance from City Code Section 25-8-281 (*Critical Environmental Features*) to allow construction within the buffer of a critical environmental feature (Eliza Spring); and
- Grants a variance from City Code Section 25-8-341 (*Cut Requirements*) to allow a cut more than 4 feet in depth.

Background:

A site-specific amendment to the Save Our Springs Initiative and two variances to Austin City Code are necessary to allow the construction of the Eliza Spring Outlet Daylighting (Site Plan SPC-2012-0104D, <http://www.austintexas.gov/department/eliza-spring-daylighting>). The project is necessary to repair the currently failing buried outlet pipe and to fulfill requirements in the City of Austin Endangered Species Act Section 10(a) permit for the operation of Barton Springs from the U.S. Fish and Wildlife Service.

Spring water emerging from Eliza Spring in the historic amphitheater in Zilker Park currently flows through a failing, buried pipe into the Barton Springs bypass tunnel. The Watershed Protection Department proposes to convert the buried outlet pipe back to an open stream, a process known as daylighting. This would recreate the stream habitat for the Barton Springs salamander, improving the potential for long term recovery of the species and increasing resiliency of the species to continued changing water quality and quantity conditions. In addition to the benefits to the Barton Springs salamander, there is a critical need to remove the failing, buried 24 inch diameter pipe. If the pipe completely failed, it would no longer transport sufficient water from the Eliza Spring amphitheater to the bypass tunnel to prevent the historical amphitheater from overflowing with spring water.

The Eliza Daylighting Project is included as a necessary conservation measure in the City of Austin's Incidental Take Permit from the U.S. Fish and Wildlife Service for the operation of Barton Springs in compliance with Section 10(a) of the federal

Endangered Species Act. The Eliza Spring Daylighting Project is also included in the Barton Springs Master Plan.

Construction of the Eliza Spring Outlet Daylighting Project is scheduled to begin October 2016 and be completed by Spring 2017. Barton Springs Pool will stay open during construction, though some parking will be used as a staging area and the project's Limits of Construction will prevent access to some areas of the lawn on the north side of Barton Springs Pool. Bidding for the project will begin this April. Bidding will follow the Competitive Sealed Proposal delivery method due to the sensitive nature of the project.

A site-specific amendment to the Save Our Springs Ordinance is necessary to complete the project because variances are not allowed (City Code Section 25-8-515). The project "site" includes the portion of Zilker Park generally south of Barton Springs Road and that area already exceeds the maximum allowable impervious cover of 15% (City Code Section 25-8-514). The only impervious cover added by this project are appurtenances to the drainage conveyance, which are exempted from the definition of impervious cover. However, City regulations require that the entire site be brought into compliance with current code. As this includes a much larger area than the limits of construction and affects Parks and Recreation Department resources, it is outside of the scope of this project and thus the site-specific amendment to the Save Our Springs Ordinance is necessary. Two formal land development code variances are also being bundled with the site-specific Save Our Springs Ordinance amendment. To construct the project, variances to City Code Section 25-8-281 prohibiting construction within the buffer of a critical environmental feature, and to City Code Section 25-8-341 which prohibits cuts that exceed four feet of depth, are necessary.

Eliza Spring is a critical environmental feature, and the Eliza Spring Amphitheater has previously been established as its protective buffer. Construction within the amphitheater is minimized with this project. However, the masonry and the portion of the pipe that occur inside the amphitheater must be removed, and the spring water from the amphitheater must be diverted while the stream channel is constructed. Several parts of the project require cuts that exceed four feet of depth. The stream channel itself will result in a cut and associated grading of the area surround the stream that goes to a maximum cut of approximately 10 feet. The pipe that is failing also requires a cut to be removed, and two storm drains that intersect the location of the proposed stream channel require cuts to be redirected into different parts of the tunnel that is underneath the sidewalk at Barton Springs Pool.

The number of variances has been minimized to those essential to the project. There are no other landowners in the vicinity other than the City of Austin that could be impacted by the project. The project will result in equal or better water quality. It will not increase pollutant loadings as the City's existing permit from the U.S. Fish and Wildlife Service prohibits the use of pesticides and herbicides for the project. The groundwater that will be encountered during the required cuts will be treated for Total Suspended Solids and Dissolved Oxygen before being released into Barton Creek. Erosion controls will also be used during the project, and the area will be stabilized and revegetated in compliance with the Watershed Protection Ordinance. The

floodplain function also will be improved by the project, as demonstrated by the Functional Assessment. The critical environmental feature (Eliza Spring) will not be impaired by the construction: no materials from construction can enter the water, salamander biologists will be present for all work that occurs within the amphitheater, and the spring water will be diverted around the construction.

Several measures are also added to protect the salamander population and the environmental health during construction. Salamander biologists will have oversight throughout the project and have stop work authority for anything that is deemed a potential threat to the salamanders. Several measures from the City's permit from the U.S. Fish and Wildlife Service are included in the construction design. For example, construction materials have been vetted to prevent use of materials that are hazardous to salamanders. Many measures for spill prevention also are required of the contractors, and a Spill Response Plan is included in the Project Manual. This project, although considered development, is designed as an environmental restoration project for the Barton Springs Salamander and will have an overall environmental benefit.

This item was initiated by the Planning Commission on April 28, 2015.

Staff Recommendation: Recommended, with the additional staff conditions relating to environmental protection as noted in PART 3 of attached draft ordinance.

Board and Commission Actions

February 23, 2016: The Historic Landmark Commission approved a Certificate of Appropriateness for the project on a vote of 9-0 (Commissioners Clites and Osburn recused).

March 23, 2016: Recommended by the Environmental Commission on a vote of 10-1 (with Commissioner Moya voting against) with the following conditions:

- Concern over frequent inundation of Eliza Springs with Flood Water which previously did not exist in recent history and ask staff to address this concern.
- Consider reducing density of trees with a minimum of 25 feet of spacing and consider removing bald cypress and consider more understory as a substitute for trees.

April 19, 2016: Recommended by the Codes and Ordinances Subcommittee on a vote of 4-0 with a note that there was considerable discussion of the landscaping plan associated with the project and a request that appropriate City of Austin tree professionals and Marty Stump (Assistant Director, Parks and Recreation Department) be in attendance for the Planning Commission public hearing.

May 10, 2016: To be reviewed by Planning Commission.

Council Action

May 5, 2016: Set the date for the public hearing to be conducted on June 9, 2016.

June 9, 2016: A public hearing has been set.

Ordinance Number: NA

City Staff: Chris Herrington **Phone:** 974-2840 **Email:** chris.herrington@austintexas.gov

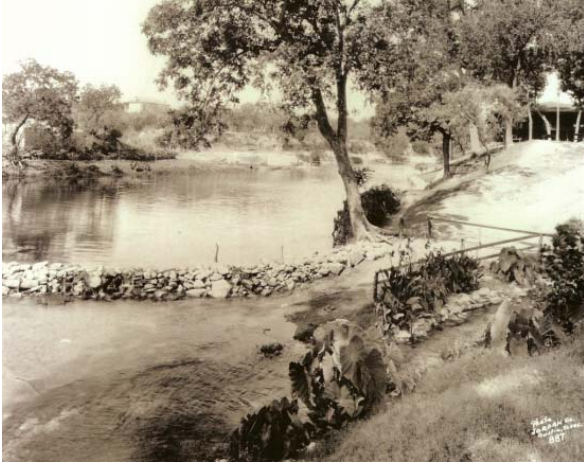
A Site-Specific SOS Amendment for the Eliza Spring Outlet Daylighting Project April 19, 2016



Dr. Donelle Robinson, Environmental Scientist



Eliza Spring Modifications



- Amphitheater built
- Outflow buried
- Concrete floor
- Masonry infill



Natural Habitat of Barton Springs Salamanders



Upper Barton Spring



**City of Austin
Water Quality Protection Lands**

Eliza Stream Restoration

- Need:
 - Broken infrastructure: buried pipe will fail
 - U.S. Fish and Wildlife Service permit to keep Barton Springs Pool open
- Opportunities:
 - Reestablish historical waterway
 - Create endangered species habitat in stream

Proposed Stream



Native Landscaping Plan

- Needs:
 - Salamander habitat requirements
 - Floodplain health (assessed with functional assessment)
- Process:
 - Multiple meetings to review and refine plans to optimal given constraints:
 - Tree Professionals reviewing, adjusting, and approving plan:
WPD Registered Landscape Architect, WPD Ph.D. Botanist,
PARD Urban Forester, and Dev. Services City Arborist
 - PARD Aquatics Staff included for pool user needs and maintenance
 - HDR and Site Plan Review reviewed for structural concerns

Need for Amendment to SOS Ordinance

- **25-8-515**: No exemptions, special exceptions, waivers, or variances to SOS Ordinance
- **25-8-514**: Site currently exceeds limits impervious cover in Barton Springs Zone
- **25-8-281**: Construction within the critical environmental feature buffer of Eliza Spring
- **25-8-341**: Cutting a tract of land exceeding a depth of four feet

Project Limits of Construction

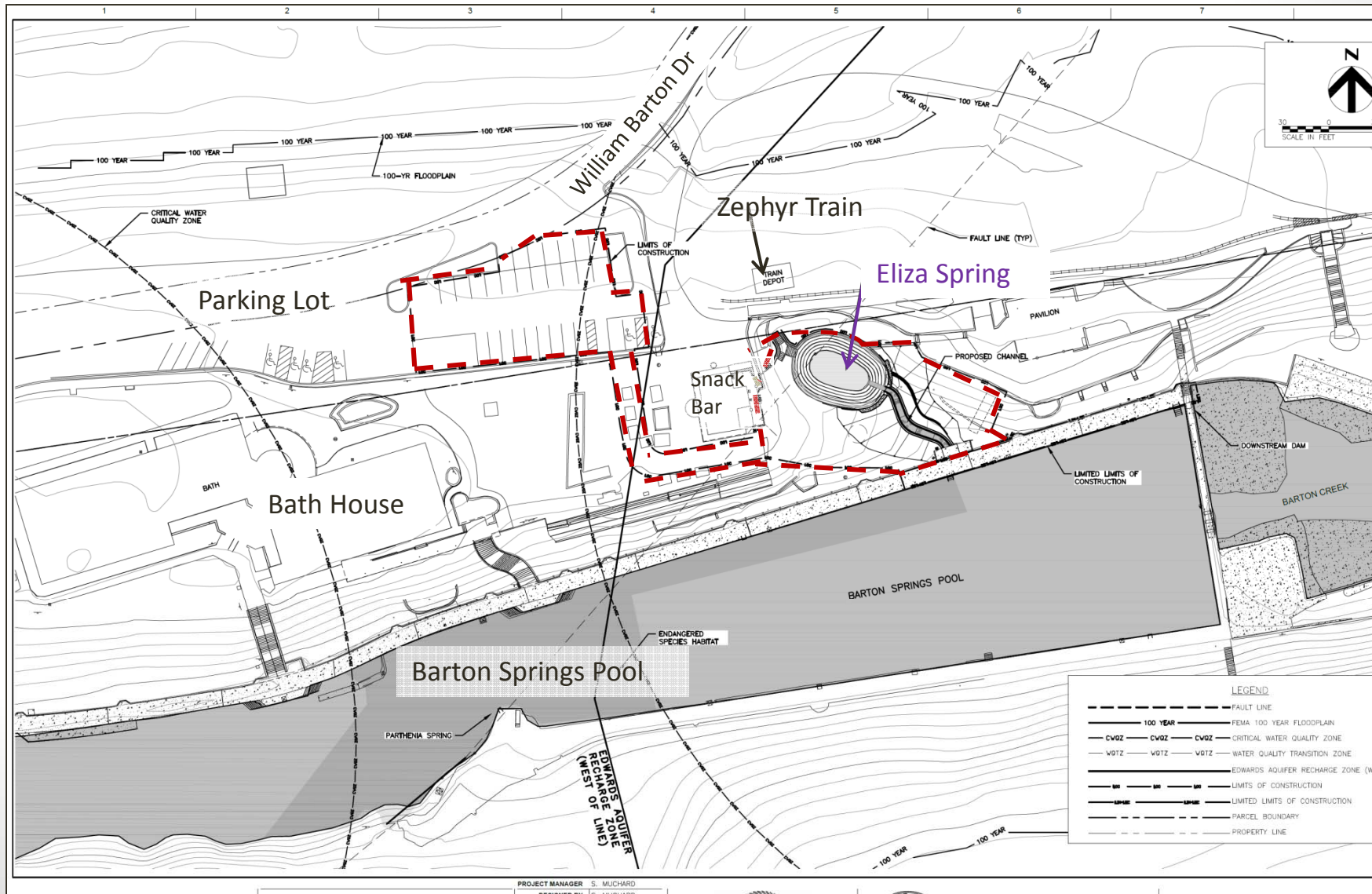
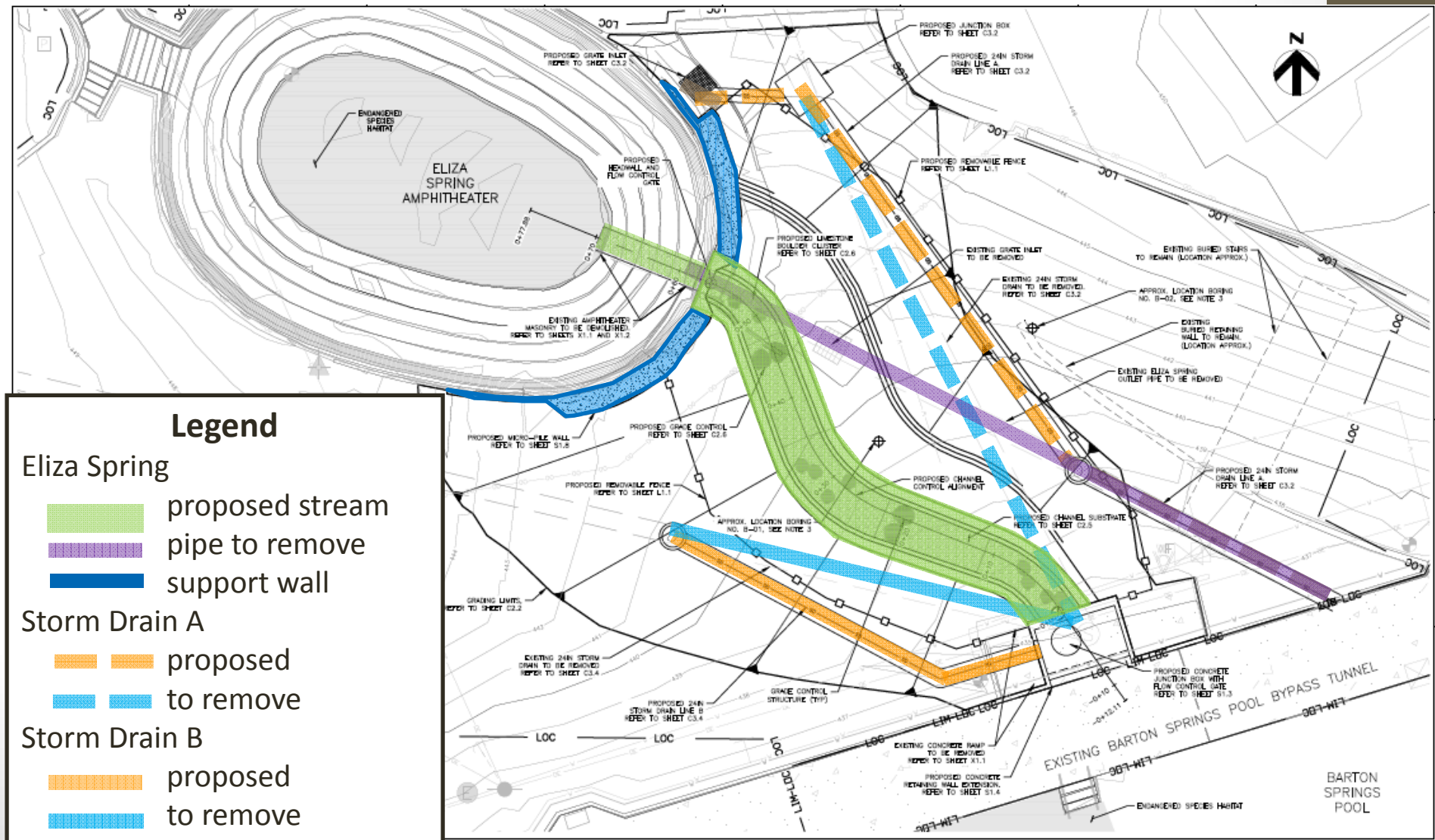


Exhibit B: New Channel, Storm Drain Redirection, and Structural Support



Project results in equal or better water quality:

- Salamander biologists present for all work in salamander habitat
- Salamander biologist oversight throughout project
- Suspended solids removal from water prior to discharge
- Erosion controls during construction
- Area to be stabilized after construction
- Area revegetated consistent with Watershed Protection Ordinance
- Additional protections from Habitat Conservation Plan

Contact Information

Dr. Donelle Robinson

Watershed Protection Department

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512-974-1242

Eliza Springs Daylighting Website:

<http://www.austintexas.gov/departments/eliza-spring-daylighting>

Exhibit A: Limits of Construction

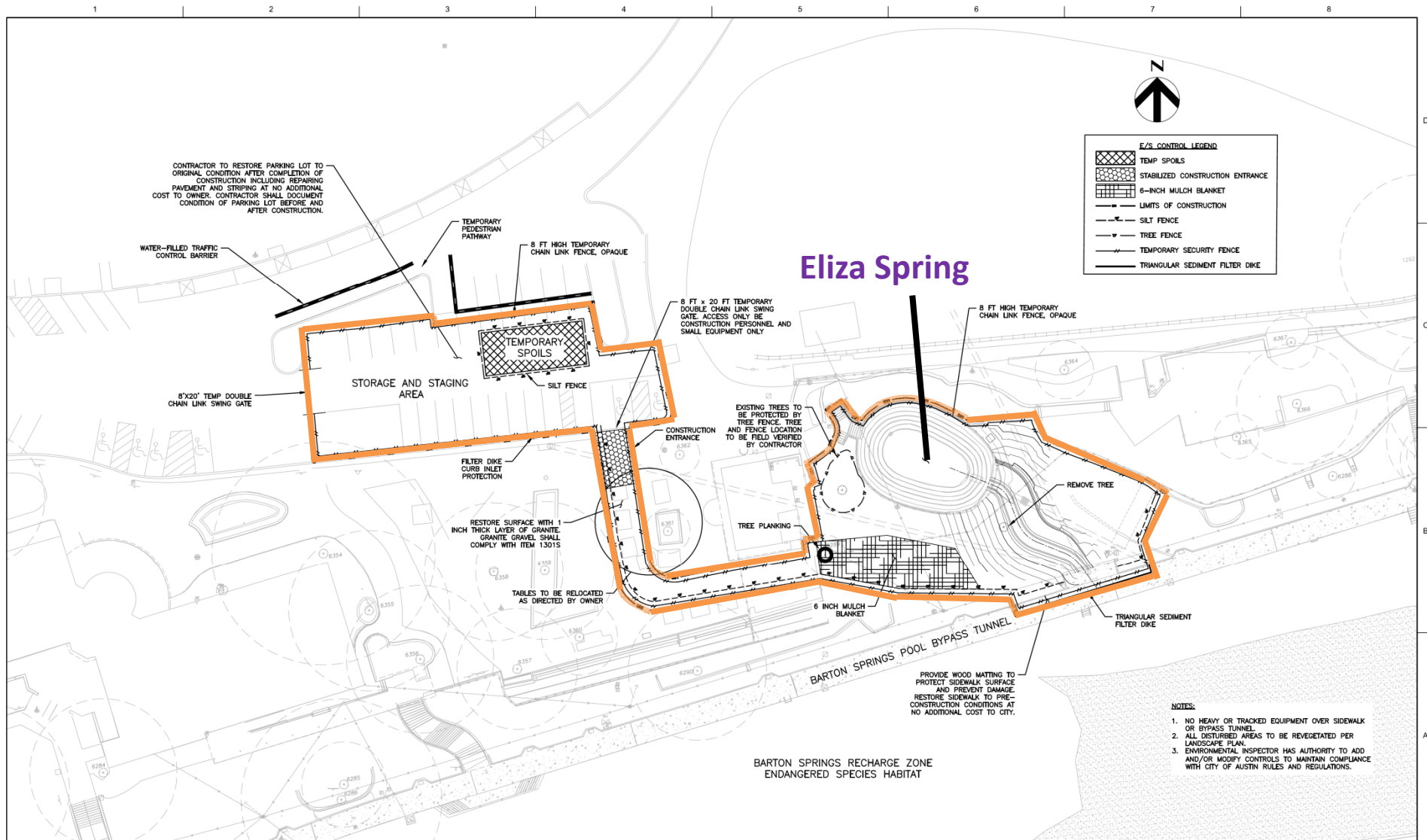
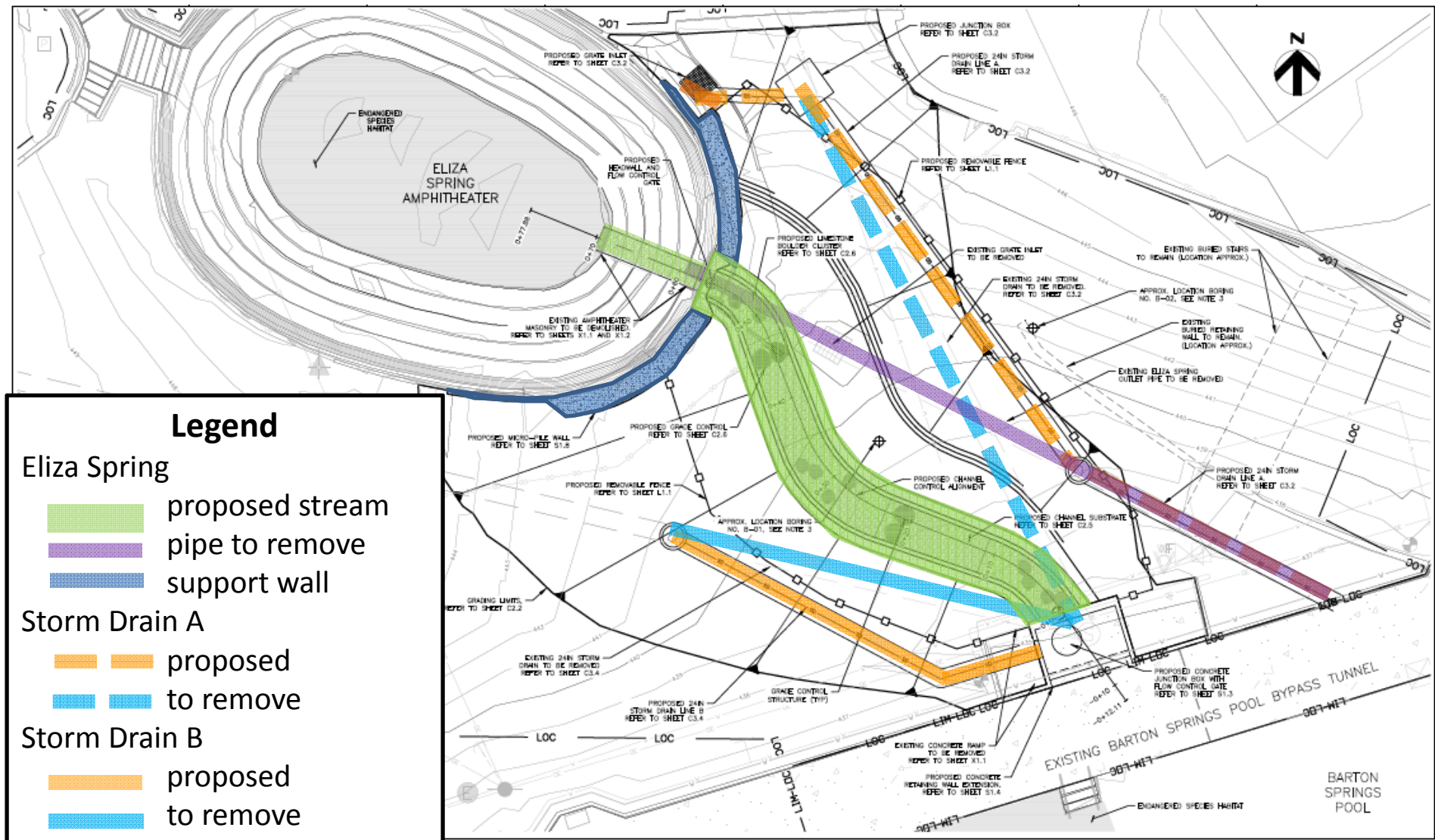


Exhibit B: New Channel, Storm Drain Redirection, and Structural Support



**03/23/2016 DRAFT: FOR REVIEW ONLY
ORDINANCE NO. XXX**

**AN ORDINANCE AMENDING SECTION 25-8-514 OF THE CITY CODE AND
GRANTING A VARIANCE TO SECTIONS 25-8-281, AND 25-8-341 OF THE CITY
CODE TO ALLOW CONSTRUCTION WITHIN THE BUFFER OF A CRITICAL
ENVIRONMENTAL FEATURE, AND TO ALLOW A CUT EXCEEDING A DEPTH OF
FOUR FEET.**

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:

PART 1. This ordinance grants a site-specific amendment to City Code Section 25-8-514 (*Save Our Springs Initiative*) and variances to City Code sections 25-8-281 (*Critical Environmental Features*) and 25-8-341 (*Cut Requirements*) subject to Site Plan 2012-0104D to facilitate spring outlet daylighting and stream restoration at Eliza Spring (hereinafter the “Restoration Project”).

PART 2. A variance is granted from Section 25-8-281 (*Critical Environmental Features*) and Section 25-8-341 (*Cut Requirements*) and an exemption is provided from Section 25-8-514 (*Pollution Prevention Required*) of the City Code as amended to allow construction within the buffer of a critical environmental feature, cut of a tract of land exceeding a depth of four feet and an exemption from pollution prevention requirements of the Save Our Springs Ordinance associated with the Restoration Project as shown in Exhibits A and B.

PART 3. Construction authorized by this ordinance must adhere to the following conditions:

- (A) Protection of endangered species using the Conservation Measures described in the U.S. Fish and Wildlife Service Incidental Take Permit TE-839031-1 issued to the City of Austin.
- (B) Areas disturbed by construction will use protections for trees as warranted and use erosion and sediment controls. After construction, all disturbed areas will be revegetated.
- (C) A plan for handling water originating from Eliza Springs to re-route it from the Eliza Spring amphitheater, around the excavation of the existing outlet pipe, and into Barton Creek or the Barton Creek bypass culvert.
- (D) A plan for handling groundwater infiltrating into the trench excavations during construction, filtering suspended solids from the water to applicable standards and discharging the water into Barton Creek or the Barton Creek bypass culvert.
- (E) After the Restoration Project is complete, the new stream channel will be vegetated.

PART 4. This ordinance takes effect on _____, 2016



MEMORANDUM

TO: Dr. Mary Gay Maxwell, Chair and Commissioners
Environmental Commission

FROM: Chuck Lesniak, Environmental Officer
Watershed Protection Department

DATE: March 17, 2016

SUBJECT: SOS and Other Code Amendments for Eliza Springs Outlet Daylighting Project
SP-2012-0104D

On the March 23, 2016 Environmental Commission agenda is a proposed amendment to the City's Save Our Springs ordinance and related variances to the Chapter 25-8 of the Land Development Code. The ordinance is being brought forward to enable the Watershed Protection Department (WPD) to proceed with the Eliza Springs Outlet Daylighting Project.

Project Description and Background

Eliza Springs in Zilker Park (Figure 1) is habitat for the endangered Austin Blind and Barton Springs salamanders. Groundwater emerges from Eliza Springs and currently flows out of the historic amphitheater, into an underground pipe on the north side of the grounds of Barton Springs, and thence flows into the Barton Springs Bypass Tunnel. The existing outlet pipe is failing and requires replacement. Historically, Eliza Springs was connected to Barton Creek via a natural surface stream (Figure 2).

The Barton Springs Complex is not only critical habitat for federally-endangered salamander species, but also an important recreational resource for Austin. Operation of Barton Springs as a swimming facility requires a permit from the U.S. Fish and Wildlife Service (USFWS) to allow incidental "take" of protected salamanders under the federal Endangered Species Act Section 10(a)(1)(B). The City of Austin permit from the USFWS, authorized by Austin City Council Resolution 20111103-034, includes a conservation measure to replace the buried outlet pipe of Eliza Spring with a natural "daylighted" surface stream (Figure 3). The new surface stream will increase the area of potential salamander habitat and thus increase the resiliency of the salamander species to changing climatic and hydrologic conditions in the future.

Construction of the daylighted stream must fully comply with all of the conservation measures in the USFWS-approved Habitat Conservation Plan for Barton Springs, including the minimization of entry of anthropogenic pollutants into salamander habitat. WPD salamander biologists will oversee all aspects of the construction. Erosion control will be utilized consistent with code requirements, and suspended sediment in groundwater infiltrating into the excavation during construction will be filtered prior to discharge. Impacts to Eliza Springs itself within the amphitheater will be limited in spatial and temporal

extent, just to allow reconstruction of the keyway exit, and salamanders will be removed from the area prior to any dewatering.

WPD and consulting engineers HDR have developed a design to replace the failing buried pipe with the new surface stream (Figure 4). Some existing storm drains must be relocated to make room for the new surface stream. The project area is located within the grounds of Barton Springs in Zilker Park, in the Critical Water Quality Zone and floodplain of Barton Creek, in the Drinking Water Protection Zone and over the Edwards Aquifer Recharge Zone. The area in question is subject to the the Watershed Protection Ordinance, and the Save Our Springs Ordinance. The project is utilizing the existing, active site plan for Zilker Park and is proceeding as revision 2 of SP-2012-0104D.

Code Amendment and Variances

To construct the new surface stream, a cut of more than 4 feet is necessary to access the buried outlet pipe and to create a new stream channel with stable side slopes. The existing keyway where groundwater exits the Eliza Springs amphitheater must be removed to connect Eliza Springs with the new surface stream and thus construction must occur within the buffer of a Critical Environmental Feature (Eliza Spring itself).

The portion of Zilker Park on SP-2012-0104D within the Barton Creek Watershed already exceeds the maximum allowable 15% impervious cover. The SOS Ordinance would require the full site described on SP-2012-0104D to be brought into compliance for impervious cover in order to conduct the development proposed for the Eliza Springs Outlet Daylighting Project.

For the Eliza Springs Outlet Daylighting Project to complete the site development permit application process, two variances are necessary:

- 25-8-281 (*Critical Environmental Features*) to allow construction within the buffer of a Critical Environmental Feature (Eliza Springs), and
- 25-8-341 (*Cut Requirements*) to allow cut on a tract of land more than 4 feet in depth.

Because 25-8-515 prohibits variances from the SOS Ordinance, a site-specific amendment to the SOS Ordinance approved by the City Council is necessary to allow construction of the Eliza Springs Outlet Daylighting Project. Due to the special nature of the project to restore a historic stream and create additional salamander habitat in compliance with USFWS permit requirements, and in the interest of efficiency, the proposed site-specific ordinance will also authorize the two necessary variances.

Project Review

WPD is the project sponsor, and has developed the design in consultation with staff from the Parks and Recreation Department. Due to the complex nature of the project location in endangered species habitat, affecting a historic structure, in a floodplain, and in a metropolitan park, WPD is pursuing development of the daylighted stream under a full site plan. Staff from Development Services and other City of Austin departments have completed one round of review of the site plan application.

Recommendation

Staff recommends approval of the proposed amendment and associated variances for the following reasons:

- The project is a condition of the USFWS permit for the continued operation of Barton Springs as a recreation facility.
- The project will increase the area of surface habitat for endangered salamanders.

- The project will replace a failing, buried outlet pipe with a surface stream more consistent with the historic conditions.
- The project will replace existing turf grass with a new riparian vegetation community that improves floodplain health as determined by a floodplain functional assessment to “good” consistent with the Watershed Protection Ordinance.
- The project will not impair the function of Eliza Springs, and impacts to the existing spring pool during construction will be minimized.
- Salamander biologists will be present on site during all aspects of the construction to oversee activity and ensure no unauthorized impacts to endangered salamanders.
- The project will comply with all applicable conservation measures in the USFWS permit for the continued operation of Barton Springs, including limitations on the use of herbicides, pesticides and fertilizers, such that the project will not result in any increase in pollutants.
- Erosion controls will be utilized in compliance with city code to ensure no discharge of sediment.
- Groundwater infiltrating into the excavation area will be filtered prior to discharge.
- Eliza Spring outflow will be re-routed around the excavation area during construction and will continue to discharge into Barton Creek.
- The new stream side slopes have been specifically designed to be stable and withstand flooding from Barton Springs.
- Other than the SOS amendment and variances identified, the project complies with City Code.

Figure 1. Salamander habitat spring locations within Zilker Park



Figure 2. Historic and current photographs of Eliza Spring.



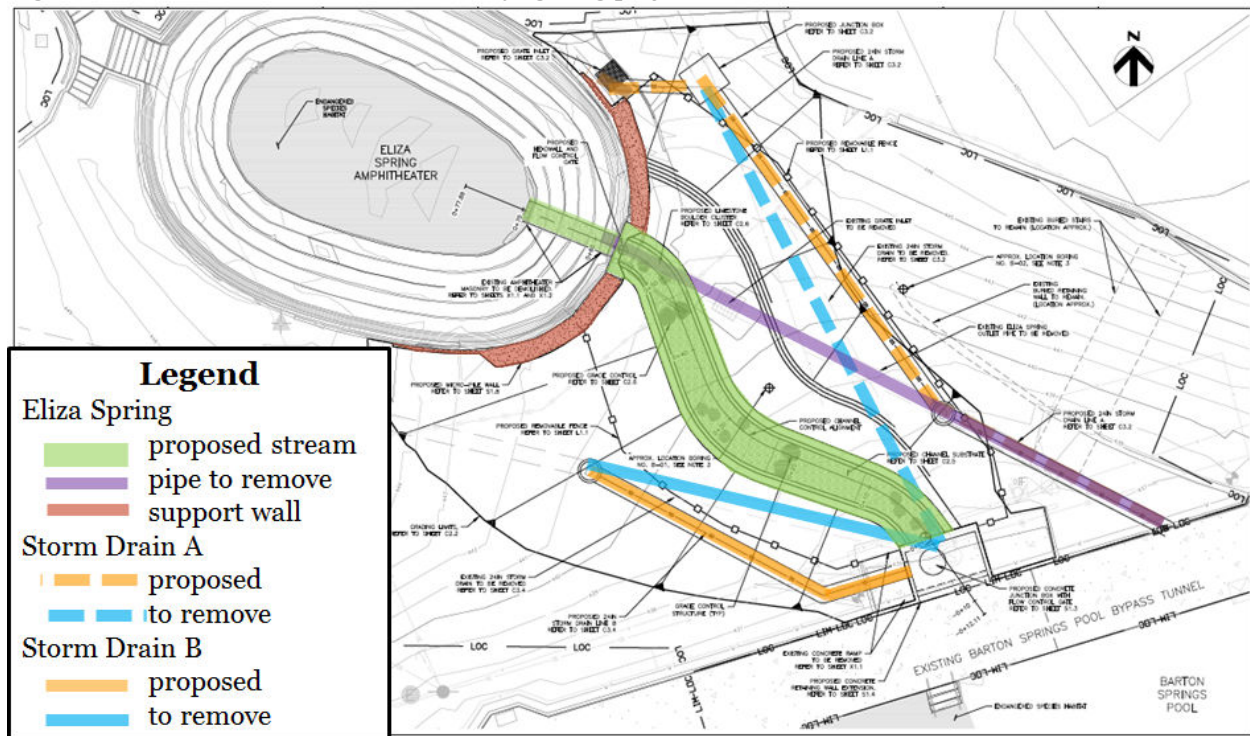
Austin History Center, Austin Public Library



Figure 3. Photosimulation of new Eliza Spring outlet surface stream.



Figure 4. Construction detail for Eliza Daylighting project.



ACTION ITEM

Name: Eliza Springs Outlet Daylighting (as revision to Barton Springs General Grounds Improvements) **SPC-2012-0104D**

Applicant: City of Austin Watershed Protection Department

Location: Zilker Park, 2201 Barton Springs Road

Staff Reviewer: Atha Phillips, DSD Environmental Review Specialist Senior

Watershed: Barton Creek (Barton Springs Zone), Drinking Water Protection Zone, and Edwards Aquifer Recharge Zone

Ordinance: Comprehensive Watershed Ordinance, Watershed Protection Ordinance, Save Our Springs Ordinance

Request: Consider and recommend approval of an ordinance granting variances as follows:

1. To allow construction within the buffer of a Critical Environmental Feature; [LDC 25-8-281]
2. To allow for a cut more than 4 feet; [LDC 25-8-341]

And providing amendments to the SOS Ordinance as follows:

1. To exempt the project from the impervious cover and pollution control requirements of the SOS Ordinance; [LDC 25-8-514(A)]

Staff Recommendation: Recommended for approval

**ENVIRONMENTAL COMMISSION MOTION 20160323 008a**

Date: March 23, 2016

Subject: Eliza Springs Outlet Daylighting (as revision to Barton Springs General Grounds Improvements) SPC-2012-0104D

Motion By: Pam Thompson

Second By: Peggy Maceo

RATIONALE:

Whereas, the Project is a condition of the USFWS permit for the continued operation of Barton Springs as a recreation facility. The project will replace a failing, buried outlet pipe with a surface stream more consistent with the historic conditions. The project will replace the existing turf grass with a new riparian vegetation community that improves floodplain health as determined by a flood plain functional assessment to “good” consistent with the Watershed Protection Ordinance; and

Whereas, the project will increase the area of surface habitat for endangered salamanders. And the project will not impair the function of Eliza Springs, and impacts to the existing spring pool during construction will be minimized.

Therefore, the Environmental Commission recommends support of the request for a site specific amendment to City Code Section 25-8-514 (Save Our Springs Initiative) and variances to City Code Sections 25-8-281 and 25-8-341 to allow the proposed project to exceed impervious cover limits and cut requirements, exempt the project from the pollution control requirements of the Save our Springs Initiative, and allow specific construction within the buffer of a critical environmental feature with the following;

Staff Conditions:

- Salamander biologists will be present on site during all aspects of the construction to oversee activity and ensure no unauthorized impacts to endangered salamanders;
- The project will comply with all applicable conservation measures in the USFWS permit for the continued operation of Barton Springs, including limitations on the use of herbicides, pesticides and fertilizers, such that the project will not result in any increase in pollutants;
- Erosion controls will be utilized in compliance with city code to ensure no discharge of sediment;
- Groundwater infiltrating into the excavation area will be filtered prior to discharge;
- Eliza Springs outflow will be re-routed around the excavation area during construction and will continue to discharge into Barton Creek;
- The new stream side slopes have been specifically designed to be stable and withstand flooding from Barton Springs;
- Other than the SOS amendment and variances identified, the project complies with City Code.

Environmental Commission Conditions:

1. Concern over frequent inundation of Eliza Springs with Flood Water which previously did not exist in recent history and as staff to address this concern

2. Consider Reducing density of trees with a minimum of 25' of spacing and consider removing bald cypress and consider more understory as a substitute for trees

VOTE 10-0-0-1

Recuse: None
For: Creel, Thompson, Gooch, Neely, Maxwell, H. Smith, B. Smith, Grayum, Maceo, Perales
Against: Moya
Abstain: None
Absent: None

Approved By:

A handwritten signature in black ink, appearing to read "Mary Gay Maxwell". The signature is written in a cursive, flowing style.

Mary Gay Maxwell, Environmental Commission Chair